

Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

Ackermann GES9B floor
box installation

Advanced Digital Sync
Processing™

Architectural Adapter Plate
openings

Active audio interfacing

300 MHz (-3dB) video
bandwidth

15-130 kHz compatibility

9-pin D input
(RGB 508 AKM)

15-pin HD input
(RGB 558 AKM)

Buffered local monitor output
(RGB 558 AKM)

Level/peaking control

Horizontal centering

RGsB, RGBS, or
RGBHV output

12-24VAC/VDC



RGB 508 AKM and RGB 558 AKM



APPLICATIONS

Extron's RGB 508 AKM and RGB 558 AKM with audio and ADSPTM are two universal, computer-video interfaces designed for use with the Ackermann floor tank system. The RGB 508 AKM or RGB 558 AKM fits flush within the included Ackermann GES9B mounting box for convenient and easy installation with RGB output connections on 6" cable extensions. The RGB 508 AKM and RGB 558 AKM feature a 15-130 kHz horizontal scanning range with 300 MHz (-3dB) video bandwidth, a choice of 9-pin D or 15-pin HD input connectors, Extron's exclusive Advanced Digital Sync Processing (ADSPTM), active audio interfacing, and openings for optional Architectural Adapter Plates (AAPs). These interfaces are compatible with VGA, SVGA, XGA, XGA-2, Mac, Sun, SGI, and other signals.

The RGB 508 AKM's universal 9-pin D connector is compatible with any computer using one of Extron's high-quality laptop breakout cables, monitor breakout cables, MBC buffers, and internal computer wiring kits. The RGB 558 AKM offers a 15-pin HD input connector for easy connection to VGA-style computers, with Mac/Quadra and Sun/SGI adapter cable kits available, and a buffered local monitor output. ADSPTM provides all-digital sync processing so that stable images are produced on digital display devices (DLP, LCD, and plasma). Audio interfacing converts computer-generated, unbalanced audio to line-level balanced audio. The RGB 508 and RGB 558 provide openings for two single-space AAPs as additional signal pass-through connections.

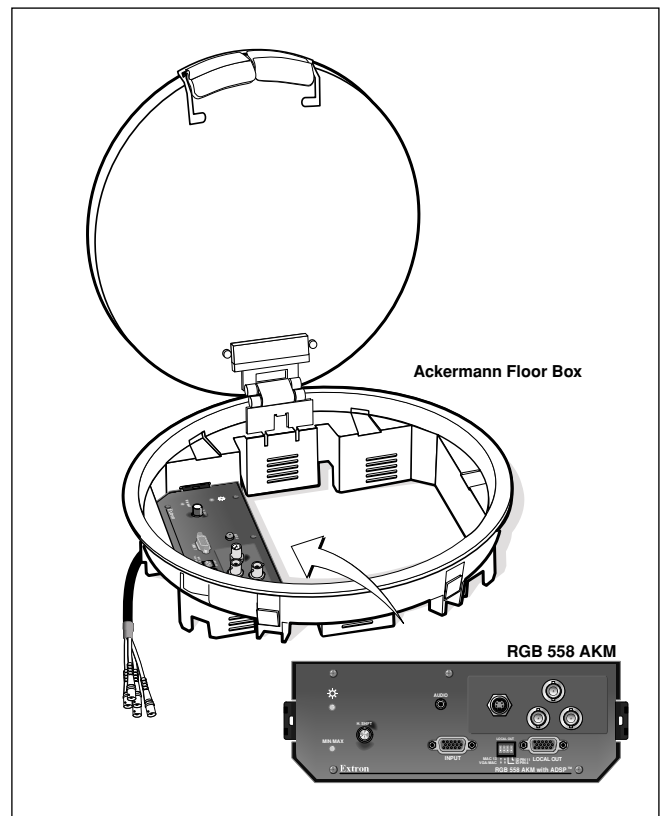
FEATURES

- **Bandwidth**– 300 MHz (-3dB) video bandwidth.
- **Input connector**– The RGB 508 AKM provides a 9-pin D input connector; the RGB 558 AKM provides a 15-pin HD input connector.
- **Buffered local monitor output**– The RGB 558 AKM offers a 15-pin HD buffered local monitor output.
- **Advanced Digital Sync Processing (ADSPTM)**– ADSP provides all-digital sync processing so that extraordinarily stable images are produced on digital display devices.
- **Active audio interfacing**– Converts unbalanced audio to line-level balanced audio. Balanced audio maintains signal quality over long cable runs, whereas unbalanced audio does not.
- **Architectural Adapter Plate (AAP) openings**– The RGB 508 and RGB 558 provide openings for two single-space AAPs as signal pass-through connections.

FEATURES (Cont.)

- **Horizontal centering**– Shifts displayed image horizontally.
- **Level and peaking**– Level and peaking compensate for signal losses over long cable runs. Level control adjusts the brightness level of the displayed image, and peaking control adjusts the sharpness level of the displayed image.
- **ID bit termination**– Available on RGB 558 AKM, switch-selectable.
- **75 ohm video termination**– Available on RGB 508 AKM, switch-selectable.
- **Selectable sync output**– Choice of composite or separate H&V sync, switch-selectable. Sync on green also available.
- **Selectable sync polarity**– Choice of positive or negative polarities for separate horizontal and vertical sync.
- **Power**– 12-24VAC/VDC accepted through captive screw connector.
- **Dual Color LED**– Displays power applied (amber) and signal present (green).

INSTALLATION DIAGRAM



ACCESSORIES

Monitor breakout cables: RGB 508 AKM and RGB 558 AKM

MBC VGA/XGA HR	26-162-01
MBC Mac Quadra.....	26-018-01
MBC Sun Sparc HR	26-424-01
MBC SGI/13W3 HR	26-425-01

Laptop breakout cables:

Laptop breakout cables are available in 3', 6' and 12' lengths with or without audio. Contact Extron for the specific cable for your application.

LBC VGA HR 6'	26-224-01
LBC Mac HR 6'	26-363-01
LBC Sun HR 6' (61 kHz)	26-413-01
LBC Sun HR 6' (71 kHz)	26-413-02
LBC Sun HR 6' (81 kHz)	26-413-03
LBC VGA HR 6' A	26-441-02
LBC Mac HR 6' A.....	26-442-02
LBC Sun HR 6' A (61 kHz)	26-443-02
LBC Sun HR 6' A (71 kHz)	26-444-02
LBC Sun HR 6' A (61 kHz)	26-445-02

Signal input cable kits for RGB 508 AKM and RGB 558 AKM:

VGA 6' HR	26-112-15
VGA 3' HR A	26-491-01
VGA 6' HR A	26-491-02
VGA 12' HR A	26-491-03
Mac Adapter kit	70-078-01
Mac Adapter kit with Audio.....	70-078-02
13W3 Adapter cable kit	70-079-01
13W3 Adapter cable kit with Audio.....	70-079-02

Architectural Adapter Plates:

A wide variety of cable pass-through Architectural Adapter Plates are available; contact Extron for a complete list of these plates.

2 BNC pass-through	70-091-01
3 BNC pass-through	70-091-02
5 BNC pass-through	70-091-03
2 RCA pass-through.....	70-093-01
3 RCA pass-through.....	70-093-02
2 S-video female to female	70-095-01
2 RJ 45 pass-through	70-100-01
1 R345 and 1 RJ11 pass-through.....	70-100-02
1 D-9 (female to female)	70-102-01
1 3-pin XLR connector	70-103-01
1 S-video and 3 RCA pass-through	70-107-04

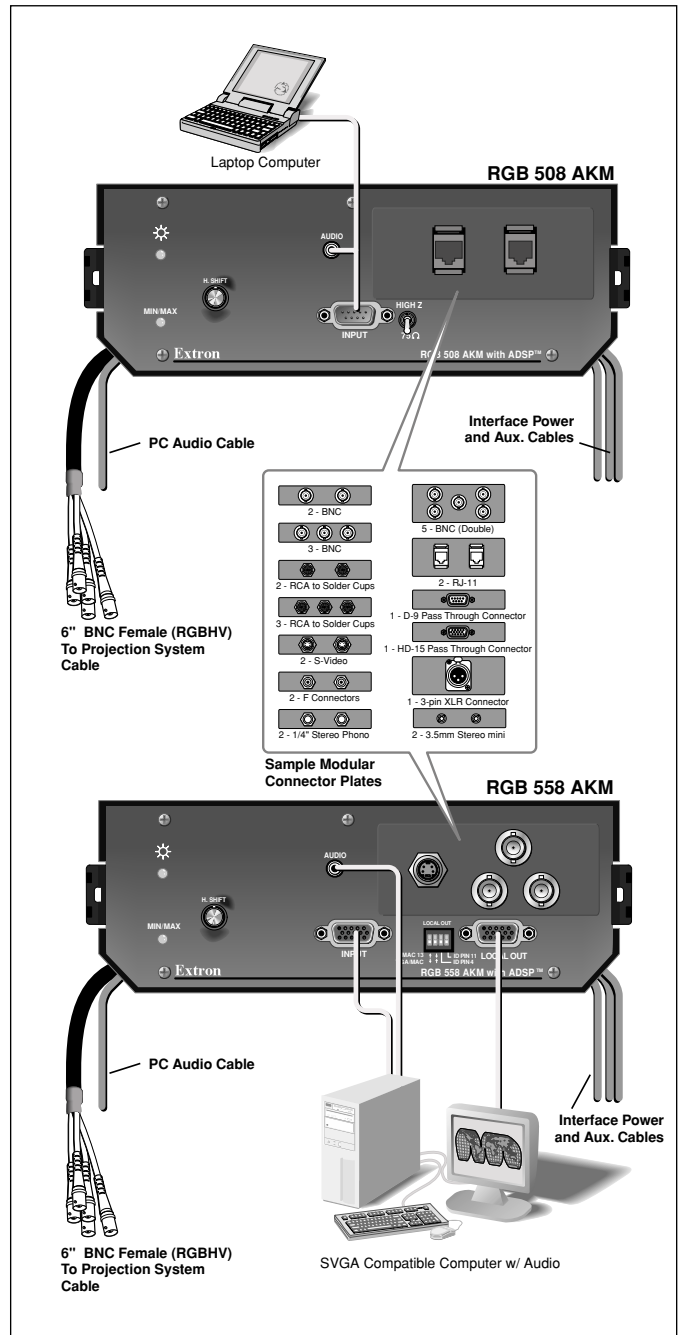
And many more.

Extron power supply

100-240 VAC, 50/60 Hz to 12 VDC/1A-External auto-switchable*

*Includes U.S. style power cord

APPLICATION DIAGRAM



SPECIFICATIONS

Video input

Number/type	1 analog RGBHV, RGBS, RGsB, RsGsBs
Connectors – RGB 508 AKM	1 9-pin D male, MBC/LBC cable or buffer
Connectors – RGB 558 AKM	1 15-pin HD male (Mac and Sun/SGL to VGA adapter cables are available.)
Nominal level(s)	Analog – 0.3V to 1.45V p-p
Maximum level(s)	Analog – 1.5V p-p
Impedance	75 ohms or High Z, switchable (set to 75 ohms if no local monitor is connected)
Horizontal frequency	Autoscan 15 kHz to 130 kHz
Vertical frequency	Autoscan 30 Hz to 120 Hz
Return loss	-30dB @ 5 MHz
Maximum DC offset	4.0V

Video throughput

Gain	Unity (0.700V), 0.725V with 50% peaking, 0.750V with 100% peaking
Bandwidth	300 MHz (-3dB)

Video output

Number/type/format	1 analog RGBHV, RGBS, RGsB
Connectors – Both interfaces	5 BNC female
Connectors – RGB 558 AKM	1 15-pin HD female for buffered local monitor output
Nominal level	0.700V p-p, 0.725V p-p, 0.750V p-p
Impedance	75 ohms
Return loss	-30dB @ 5 MHz

Sync

Input type	RGBHV TTL (±), RGsB TTL (±), RGsB 0.3V (-), RsGsBs 1.3V (-)
Output type	RGBHV (±), RGsB(±), RGsB (-)
Input level	2.0V to 5.5V p-p with ±0.3VDC offset (max.)
Output level	4.0V to 5.0V p-p
Input impedance	10 kohms
Output impedance	75 ohms
Max. propagation delay	48 nS
Max. rise/fall time	3.5 nS
Polarity	
RGBHV	Polarity follows input when RGBHV is input and the internal sync polarity switch is set to follow. Sync polarity is negative if the sync polarity switch is set to negative
RGBS, RGsB	Negative

Audio input

Number/type	1 PC level stereo, unbalanced
Connectors	1 3.5 mm stereo jack, 2 channel; tip (L), ring (R), sleeve (ground)

Impedance	10 kohms, DC coupled
Minimum level	100mV
Maximum level	+8.5dBu, (unbalanced) @ stated %THD+N

Audio throughput

Gain	Unbalanced 0dB, balanced +6dB
Frequency response	±0.05dB 20 Hz to 20 kHz
THD + Noise	0.03% @1 kHz, 0.3% @ 20 kHz at rated maximum output drive
S/N	>90dB, output 14dBu, balanced
Stereo channel separation	>95dB @ 1 kHz to 20 kHz

Audio output

Number/type	1 stereo (2 channel), balanced/unbalanced
Connectors	3.5 mm stereo captive screw terminal, 5 conductor, for left and right output
Impedance	50 ohms, unbalanced, 100 ohms balanced
Gain error	±0.1dB channel to channel
Drive (600 ohm)	> +14dBu, balanced at stated %THD+N

General

Power	12 to 24VAC or VDC, 0.5 A, 5 Watts, external (Order the power supply separately, part #70-055-01.)
Temperature/humidity	
Storage	-40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing
Operating	+32° to +104°F (0° to +40°C) / 10% to 90%, non-condensing
Rack mount	No
Enclosure type	Ackermann GES9B
Enclosure dimensions	
Faceplate	2.78" H x 7.94" W (7.06 cm H x 20.17 cm W)
Interface enclosure	3.08" H x 8.13" W x 1.62" D (7.82 cm H x 20.64 cm W x 4.12 cm D)
Shipping weight	3 lbs (1.4 kg)
Vibration	NSTA 1A in carton (National Safe Transit Assoc.)
Approvals	UL, CE, FCC Class A
MTBF	30,000 hours
Warranty	2 years parts and labor

Part Numbers

RGB 508 AKM	60-313-01
RGB 558 AKM	60-314-01



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